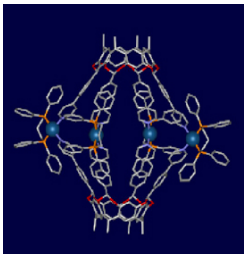
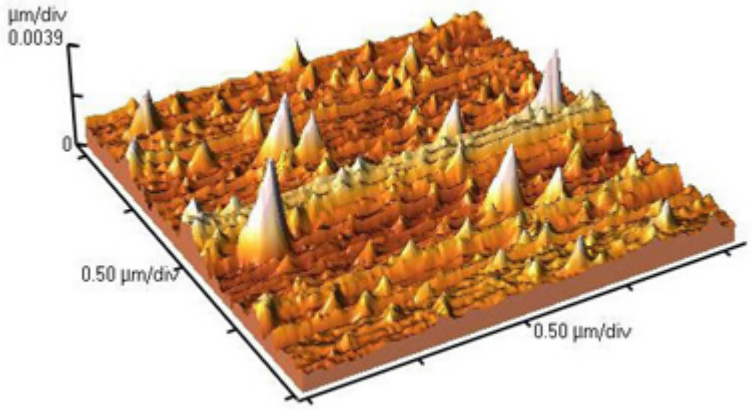
Coordination Cages



Self-assembly is the most promising approach to build organic nanostructures on surfaces, leading to hybrid organic-inorganic materials. The idea behind this approach is to exploit the thermodynamic control and reversibility of self-assembly for the error-free generation of 3D architectures, like coordination cages, directly on surfaces, which is one of the key requirements for the development of nanotechnology and molecular electronics. The extension of the self-assembly protocol to technologically interesting surfaces, like silicon, allows to build hybrid inorganic-organic structures featuring selective inclusion and other useful properties. The generation of such complex organic architectures on silicon will be pivotal in developing new integrated devices presenting peculiar optic, magnetic and sensing properties.



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